

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition to determine need for Cane Island Power Park Unit 4 electrical power plant in Osceola County, by Florida Municipal Power Agency. | DOCKET NO. 080253-EM  
ORDER NO. PSC-08-0506-FOF-EM  
ISSUED: August 8, 2008

The following Commissioners participated in the disposition of this matter:

MATTHEW M. CARTER II, Chairman  
LISA POLAK EDGAR  
KATRINA J. McMURRIAN  
NANCY ARGENZIANO  
NATHAN A. SKOP

APPEARANCES:

GARY V. PERKO, ESQUIRE, Hopping, Green & Sams, P.A., 123 South Calhoun Street, P. O. Box 6526, Tallahassee, Florida 32314; FREDERICK M. BRYANT and JODY L. FINKLEA, ESQUIRES, Florida Municipal Power Agency, P.O. Box 3209, Tallahassee, Florida 32315-3209  
On behalf of Florida Municipal Power Agency (FMPA).

KATHERINE E. FLEMING and ERIK SAYLER, ESQUIRES, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850  
On behalf of the Florida Public Service Commission (Staff).

FINAL ORDER GRANTING PETITION FOR DETERMINATION OF NEED  
FOR PROPOSED ELECTRICAL POWER PLANT

BY THE COMMISSION:

Background

On May 7, 2008, Florida Municipal Power Agency (FMPA) filed a petition for a determination of need for a proposed electrical power plant in Osceola County pursuant to Section 403.519, Florida Statutes (F.S.), and Rule 25-22.080, Florida Administrative Code (F.A.C.). FMPA's proposal consists of constructing one new unit, to be known as Cane Island Unit 4, which will be a high-efficiency, 1x1 F class, natural gas-fueled combined cycle unit, consisting of a combustion turbine and a heat recovery steam generator that will drive a steam turbine generator. The new unit will be capable of generating nominally 300 megawatts (MW). The projected in-service date for Cane Island Unit 4 is May 1, 2011.

DOCUMENT NUMBER-DATE

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FPSC-COMMISSION CLERK

This matter was scheduled for a formal administrative hearing on August 4-5, 2008. No persons intervened in this docket, and no public testimony was presented at the hearing on August 4. At the hearing, after taking all evidence, we considered the proposed stipulations regarding the appropriate resolution of all issues identified for this proceeding. We approved the stipulated positions by a bench decision, thereby resolving all issues in this docket and granting FMPA's petition for determination of need. This Order reflects our decision and serves as our report under the Power Plant Siting Act, as required by Section 403.507(4)(a), F.S.

#### Standard of Review

Section 403.519, F.S., sets forth those matters that we must consider in a proceeding to determine the need for an electrical power plant:

In making its determination, the commission shall take into account the need for electric system reliability and integrity, the need for adequate electricity at a reasonable cost, and whether the proposed plant is the most cost-effective alternative available. The commission shall also expressly consider the conservation measures taken by or reasonably available to the applicant or its members which might mitigate the need for the proposed plant and other matters within its jurisdiction which it deems relevant.

#### Findings

As discussed above, we were presented a series of stipulations which serve to address each of the issues that had been identified for hearing. We have reviewed the proposed stipulations, and find that they are appropriate based on the record development of this docket, and that they provide a reasonable resolution of the outstanding issues regarding FMPA's petition. We, therefore, approve the stipulations set forth below.

#### *Need for Electric System Reliability and Integrity*

There is a need for Cane Island Unit 4, taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519, F.S. FMPA needs Cane Island Unit 4 to meet the growing capacity requirements of the All-Requirements Power Supply Project (ARP). For planning purposes, FMPA has established a 15 percent minimum planned reserve margin criterion for the winter period and an 18 percent planned reserve margin criterion for the summer period. Because FMPA's forecast annual peak demands are projected to occur in the summer of each year, capacity additions necessary to maintain forecast capacity requirements are driven by projected summer peak demands. As shown in the following table, FMPA's summer reserve margins are forecast to fall slightly below the 18 percent level in the summer of 2010. By the following summer of 2011, FMPA's reserve margin is projected to decrease to -1.3 percent, or 286 MW below the required capacity. With the -1.3 percent reserve margin, FMPA is projected to be unable to meet peak loads in the summer of 2011. By the summer of 2012, 363 MW is needed to maintain an 18 percent reserve margin. By providing approximately 300 MW

of capacity, Cane Island Unit 4 will help to meet the ARP's growing needs and contribute to the reliability and integrity of the FMPA/ARP electric system.

Projected Reliability Levels With and Without Cane Island 4 in 2011 Summer – Base Case Load Forecast			
Year	Reserve Margin Without Cane Island 4 in 2011 (%)	Reserve Margin Reflecting Expansion Plan With Cane Island 4 in 2011 (%)	Generating Unit Additions (Summer MW)
2008	25.0%	25.0%	
2009	24.7%	24.7%	
2010	17.7%	17.7%	
2011	-1.3%	18.9%	Cane Island 4 (300 MW)
2012	-5.9%	23.7%	7FA CT (149 MW)
2013	-10.6%	26.9%	7FA CT (149 MW)
2014	-12.6%	24.1%	
2015	-14.5%	21.3%	
2016	-16.4%	20.3%	

*Need for Adequate Electricity at a Reasonable Cost*

There is a need for Cane Island Unit 4, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in Section 403.519, F.S. FMPA evaluated several supply-side technologies, either as alternatives to Cane Island Unit 4 or as capacity resource options for installation following the proposed unit. As part of that analysis, FMPA evaluated renewable technologies, conventional technologies, and emerging technologies. As FMPA's most cost-effective means of meeting the ARP's growing needs, Cane Island Unit 4 will help FMPA and the ARP members provide adequate electricity at a reasonable cost. Cane Island Unit 4 is highly efficient and takes advantage of existing electric, natural gas, and other infrastructure to lower the cost of installation.

*Need for Fuel Diversity and Supply Reliability*

There is a need for Cane Island Unit 4, taking into account the need for fuel diversity and supply reliability, as this criterion is used in Section 403.519, F.S. FMPA's capacity resources consist of a diversified mix of generation ownership and purchase power, including fossil-fuel (natural gas, oil and coal), nuclear, and renewable resources. FMPA issued a Request for

Proposals (RFP) for purchase power, but received no purchase power proposals in response. Building additional coal or nuclear generation by 2012 is not feasible due to construction and permitting lead times required for these types of generation alternatives. There are several new natural gas storage and pipeline projects that should increase the supply of natural gas to the Southeast region. Moreover, the Cane Island Site is served by two independent suppliers of natural gas: Florida Gas Transmission Company (FGT) and Gulfstream Natural Gas System, LLC. For these reasons, Cane Island Unit 4 should have a reliable fuel supply.

#### *No Mitigating Conservation Measures*

There are no conservation measures taken by or reasonably available to FMPA which might mitigate the need for the proposed Cane Island Unit 4. As a wholesale supplier of electric energy to the ARP, FMPA is not directly responsible for conservation and demand-side management (DSM) programs. However, ARP members offer a variety of conservation and DSM programs to their consumers. The impact of these existing conservation and DSM programs are reflected in the ARP's load forecast. In July 2007, FMPA issued an RFP for DSM activities. Discussions are proceeding with the two vendors for the potential implementation of load control measures designed to reduce peak load demand. Subsequent to the filing of the Cane Island 4 Need for Power Application, FMPA has entered into a contract with an energy service company (ESCO) to design, develop, and implement energy efficiency projects for commercial and industrial customers. Additionally, FMPA is developing a program to assist ARP Members in implementing energy conservation measures. Under this program, FMPA could collect funds through its rates that would be allocated among the ARP Members for conservation programs.

#### *Most Cost-Effective Alternative Available*

Cane Island Unit 4 is the most cost-effective alternative available, as this criterion is used in Section 403.519, F.S. Cane Island Unit 4 provides the most cost-effective solution to satisfy FMPA's forecast capacity requirements. Although FMPA, an association of municipal utilities, is not subject to the Commission's "Bid Rule," the agency issued a competitive RFP for purchase power options, as well as separate RFPs for renewable and solar energy resources. Based on the results of production cost modeling of multiple economic scenarios, FMPA identified a new nominal 300 MW combined cycle generating facility as the most cost-effective alternative to meet the ARP's capacity needs. FMPA's evaluation included several sensitivity analyses utilizing different fuel costs and potential CO2 regulatory costs based on estimates developed by the U.S. Department of Energy's Energy Information Agency and the U.S. Environmental Protection Agency. Results of the analysis showed that building Cane Island Unit 4 would produce savings through 2027 of \$21.6 million to \$81.5 million. All of the analyses demonstrate that the proposed Cane Island Unit 4 with an in-service date of 2011 is FMPA's most cost-effective alternative to meet the ARP's need for additional capacity.

*Renewable Energy Sources and Technologies Utilized to the Extent Reasonably Available*

FMPA has utilized renewable energy sources and technologies, as well as conservation measures, to the extent reasonably available. FMPA's generating mix already includes reasonably available renewable resources. In addition, FMPA issued RFPs for renewable and solar energy resources. Based on FMPA's evaluation, none of the RFP responses were cost-effective compared to the self-build alternative. However, the ARP is continuing to investigate a new solar initiative which would include initial installation of 10 MW of solar photovoltaic (PV) capacity with potential to ultimately increase the PV capacity to 100 MW. FMPA also is in discussions with a vendor regarding a potential purchase of renewable energy from a new biomass facility. However, FMPA's ultimate decision whether or not to utilize the additional biomass resource at the attendant higher cost will depend on the ability to reach acceptable contractual terms, as well as the resolution of numerous regulatory issues. Although FMPA has not made a final decision on the potential solar and biomass purchases, they have been included in two of the alternative resource plans examined in the economic analyses. Those analyses demonstrate that Cane Island Unit 4 would still be the most cost-effective alternative for meeting the ARP's capacity needs even if FMPA were to enter into the biomass and solar purchases. As compared to the reference case, the modeling scenarios with the solar and biomass alternatives would increase total system costs by approximately \$285.9 million. FMPA will report on the status of the potential solar and biomass projects in its annual ten year site plan.

The ARP Members offer a variety of conservation and DSM programs to their consumers. Additionally, as a result of the DSM RFP and other efforts, FMPA continues to explore potential conservation measures and, subsequent to the filing of the Cane Island 4 Need for Power Application, has signed an agreement with the vendor who proposed to provide ESCO services. Potential demand and energy savings associated with these projects would not affect the need for Cane Island Unit 4, but could affect the timing of future capacity addition. Even though a contract for a demand response program resulting from the RFP has not been finalized, the economic evaluations included the demand response program from the proposal with the largest capacity reduction proposed. Cane Island Unit 4 remained the most cost-effective alternative available to provide the additional capacity necessary for FMPA's system including the DSM proposal.

Conclusion

Based on the resolution of the foregoing issues, The Commission should grant the petition for determination of need for Cane Island Unit 4 because it is the most cost-effective option available to meet FMPA's needs beginning in 2011. There are no cost-effective conservation or demand-side measures available to offset the need. Cane Island Unit 4 will provide adequate electricity at a reasonable cost and it will contribute to the reliability and integrity of FMPA's system. In addition, FMPA and the ARP members have utilized renewable energy sources and technologies as well as conservation measures to the extent reasonably available.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that Florida Municipal Power Agency's petition for determination of need for its proposed Cane Island Unit 4 is granted. It is further

ORDERED that this docket shall be closed if no appeal is filed within the time permitted for filing an appeal of this Order.

By ORDER of the Florida Public Service Commission this 8th day of August, 2008.



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ANN COLE  
Commission Clerk

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NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request:

- 1) reconsideration of the decision by filing a motion for reconsideration with the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within five (5) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or
- 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Office of Commission Clerk, and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.